PHASE II STORMWATER RESOURCES – DEVELOPING EDUCATIONAL MATERIALS FOR OPTIMUM RESULTS AT FEDERAL FACILITIES

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Who is Covered?

- Phase I covers
  - Large Municipal Separate Storm Sewer Systems (MS4s)
  - Industrial Activities (includes Army installations)
  - Construction >5 acres
- Phase II covers
  - Small MS4s located in urbanized areas (includes Army installations)
  - Small Construction 1-5 acres

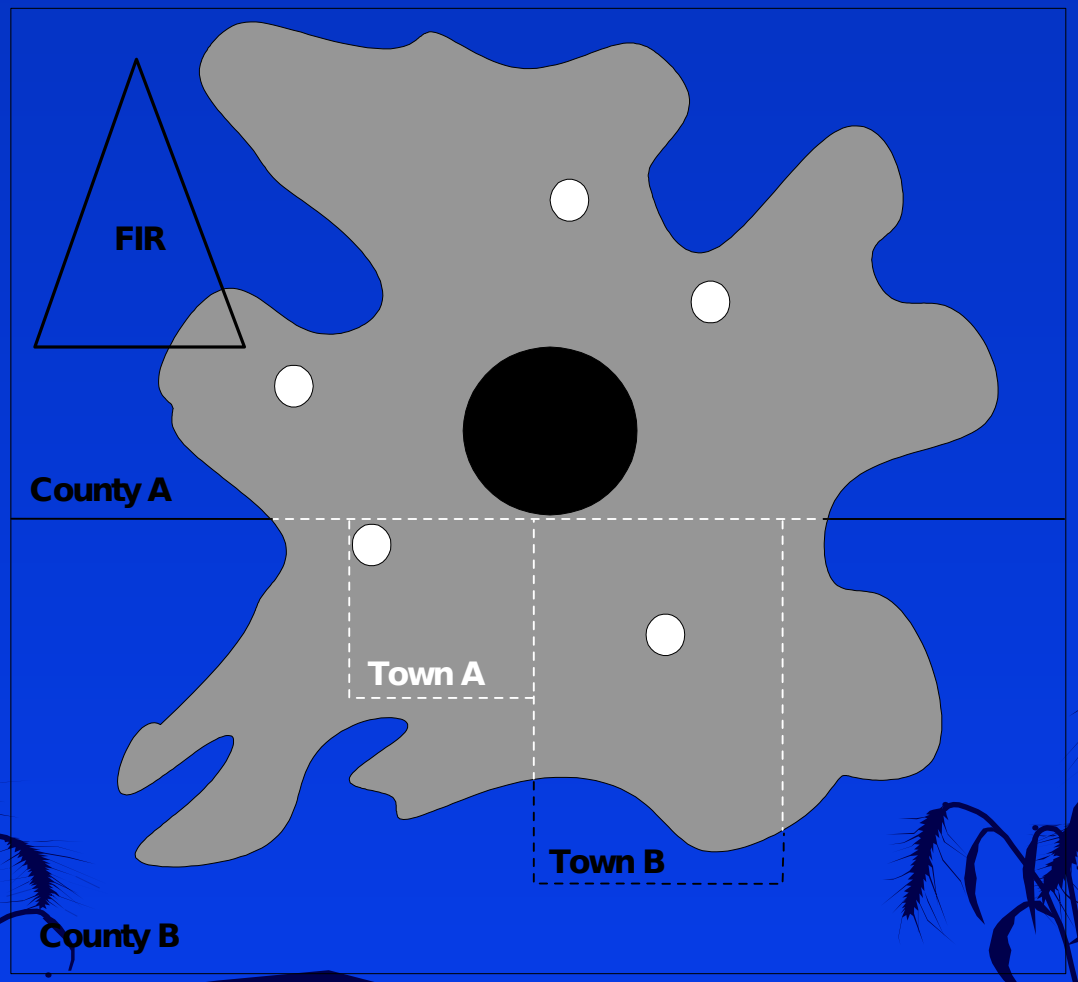
Urbanized Area Map

http://factfinder.census.gov/servlet/BasicFactsServlet

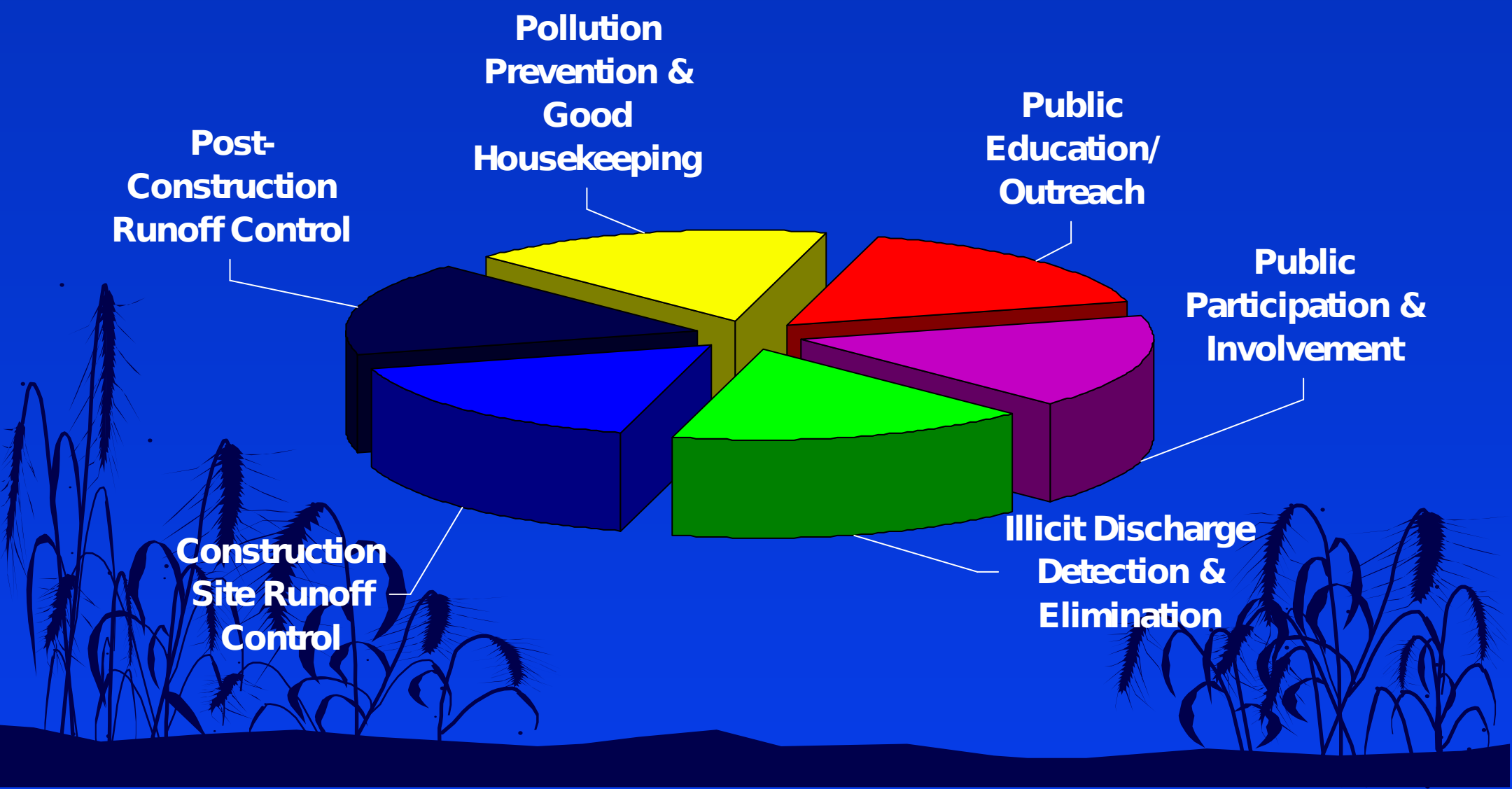
Central Place

Incorporated Place

Federal Installation



Six Minimum Measures


Pollution Prevention & Good Housekeeping
Public Education/ Outreach
Post-Construction Runoff Control
Public Participation & Involvement
Construction Site Runoff Control
Illicit Discharge Detection & Elimination

Public Education & Outreach

- “Public”
- Distribute educational materials
  - Email
  - Post newspaper/housing newsletter
  - Web page
  - Promotional giveaways
  - Earth Day/Enlisted Appreciation Day
  - Classroom education on storm water

Some Appropriate Goals for Public Education (NOI)

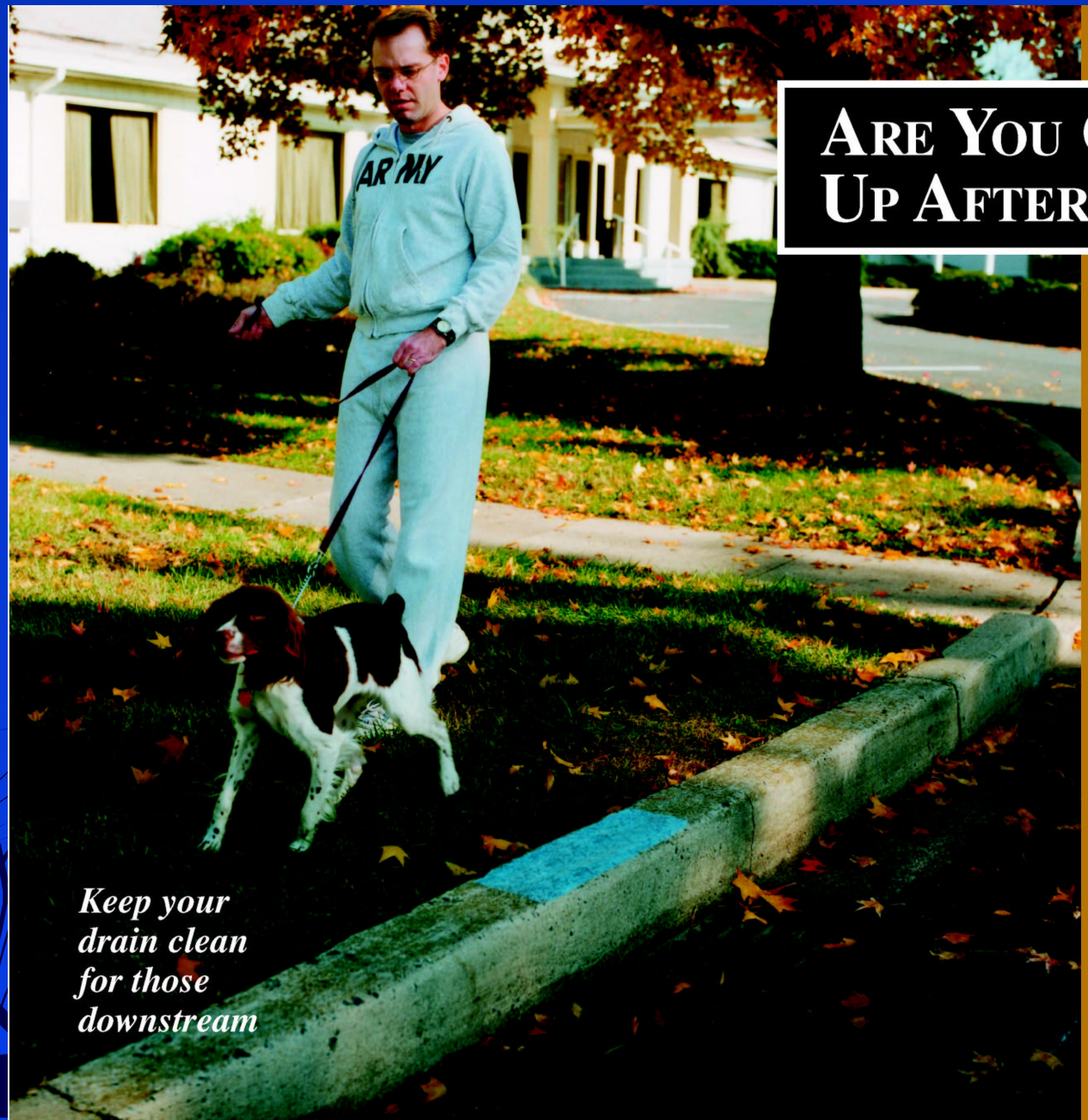
Date	BMP Goal	Measure of Success
Year 1	Develop & distribute brochures post wide	Brochures sent to tenants and residents
Year 1	Write/publish quarterly newspaper article	Article appears in paper
Year 2	SW awareness posters displayed prominently	Posters in library, post office, credit union

Educational Materials Developed By CHPPM

- Posters
- Brochures
- Stickers
- Magnets
- Coloring Pages

- Fact Sheets
  - **Car Care**
  - **Household hazardous waste**
  - **Pet Care**
  - **Lawn care (Fertilizer)**
  - **Lawn care (Pesticide)**
  - **Frequently Asked Questions**
  - **Fatty Sewers**

Pet Waste Poster



Are You Cleaning Up After Your Pet?

Pet Waste and Storm Water Quality

Pet waste can:

- Enter streams and rivers during storms.
- Harm fish and degrade water quality.
- Transmit diseases to children.
- Make recreational water unsafe.

Tips for proper disposal:

- Flush it.
- Bury it.
- Trash it.

Contact Environmental at (910) 341-8425.

Improving Storm Water Quality

Car Care Poster

Only Rain In The Storm Drain

Car Care and Storm Water Quality

Tips to reduce water pollution:

- Use drip pans.
- Recycle used oil.
- Clean up spills.
- Repair leaks.
- Use a car wash, not your driveway.

Contact the Environmental Office at 719-526-1730.

Improving Storm Water Quality

Don’t Dump Poster

Fats Poster

What Goes Down Your Drain?

What are fats?

Cooking oil, shortening, butter, margarine, meat fat, lard, food scraps, dairy products, and sauces.

Fat and grease cause:

- Clogged pipes.
- Sewer overflows into streams.
- Sewer back-ups into homes and streets.

Tips for proper disposal:

- Do not put fat and grease in drains or disposals!
- Instead, trash it.
- and…use sink strainers in food prep areas.

Contact Environmental at (910) 341-8425.

Improving Storm Water Quality

Pet Brochure

Pet Waste and Water Quality

Are You Cleaning Up After Your Pet?

KEEP THE

STORM DRAINS

CLEAN FOR

THOSE DOWNSTREAM

Improving Storm Water Quality

Fact Sheets

Lawn Care, Fertilizer and Water Pollution

KEEP THE STORM DRAINS CLEAN FOR THOSE DOWNSTREAM

Natural methods of lawn care in conjunction with chemicals can produce a healthy lawn and protect water quality.

The overuse of lawn fertilizers and weed killers can harm streams, rivers, and ponds. Sole reliance on chemicals is no longer recommended for maintaining a beautiful lawn. Instead, natural methods of lawn care in conjunction with chemicals can produce a healthy lawn and protect water quality. Certain grasses can filter pollutants (fertilizers, herbicides, sediment) and some types can control weeds while requiring less fertilizer and water. Here are some tips:

Mowing

- Don't mow too close to the ground; taller grass produces deeper roots and controls weeds.
- Practice "grasscycling", and leave clippings on the lawn to provide natural fertilization (do not blow them into ditches or streams).
- Do not mow wet grass; this causes clumping.
- Use composted yard waste as mulch and soil conditioner.

Fertilizers

Fertilizers contain nutrients (nitrogen and phosphorus) that can harm water quality by causing undesirable plants to grow in streams and ponds, blocking oxygen from the fish. Fertilizers high in nitrates (nitrogen) are more likely to enter streams because they are released more quickly. Here are some best management practices:

- Apply according to label directions. Do not apply fertilizer:
  - when the ground is frozen.
  - before or after heavy rain or irrigation.
  - during cold weather (less than 55 degrees Fahrenheit).
  - directly into, or near, streams, ponds, or ditches.
- Minimize application rates on slopes.
- Use fertilizers labeled "slowly-available nitrogen" on sandy soils, since they are less likely to enter streams.
- Base fertilizer applications on a representative soil test that shows the amounts of nutrients in the soil, waiting three to four weeks after the last fertilization.
- Aerate compacted soil to aid incorporation of fertilizer and reduce runoff.
- Maintain a vegetated buffer zone between frequently fertilized lawns and streams to prevent pollution and provide uptake of nutrients.
- Water carefully to prevent runoff and leaching.
- Water in the early morning for optimal results.
- Follow local applicable water use restrictions.

Contact Environmental at (910) 341-8425.

Improving Storm Water Quality

Crab Magnets

Turtle Magnets

Fish Magnets

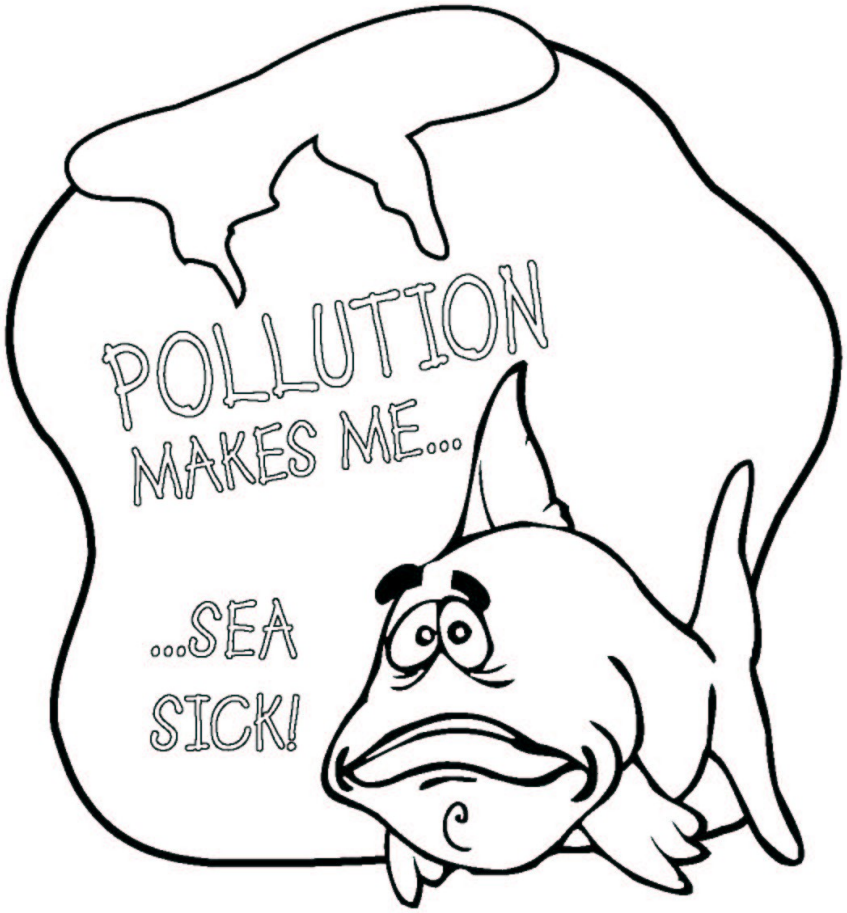
Stickers

DON'T POLLUTE

Keep storm drains clean for those downstream!

For further information, contact the installation environmental office at (xxx)xxx-yyyy.

Coloring Pages



Only rain water in storm drains... Don't pollute!

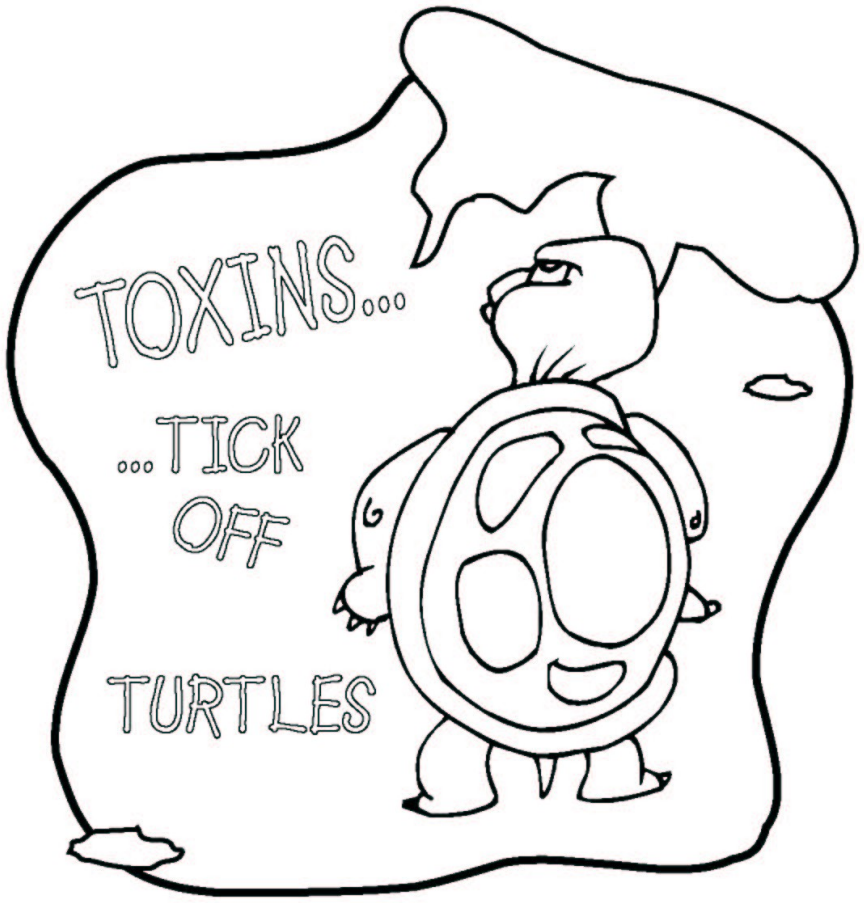
Contact Environmental at (910) 341-8425

Coloring Pages

Don't pollute... Keep storm drains clean for those downstream!

Contact Environmental at (910) 341-8425

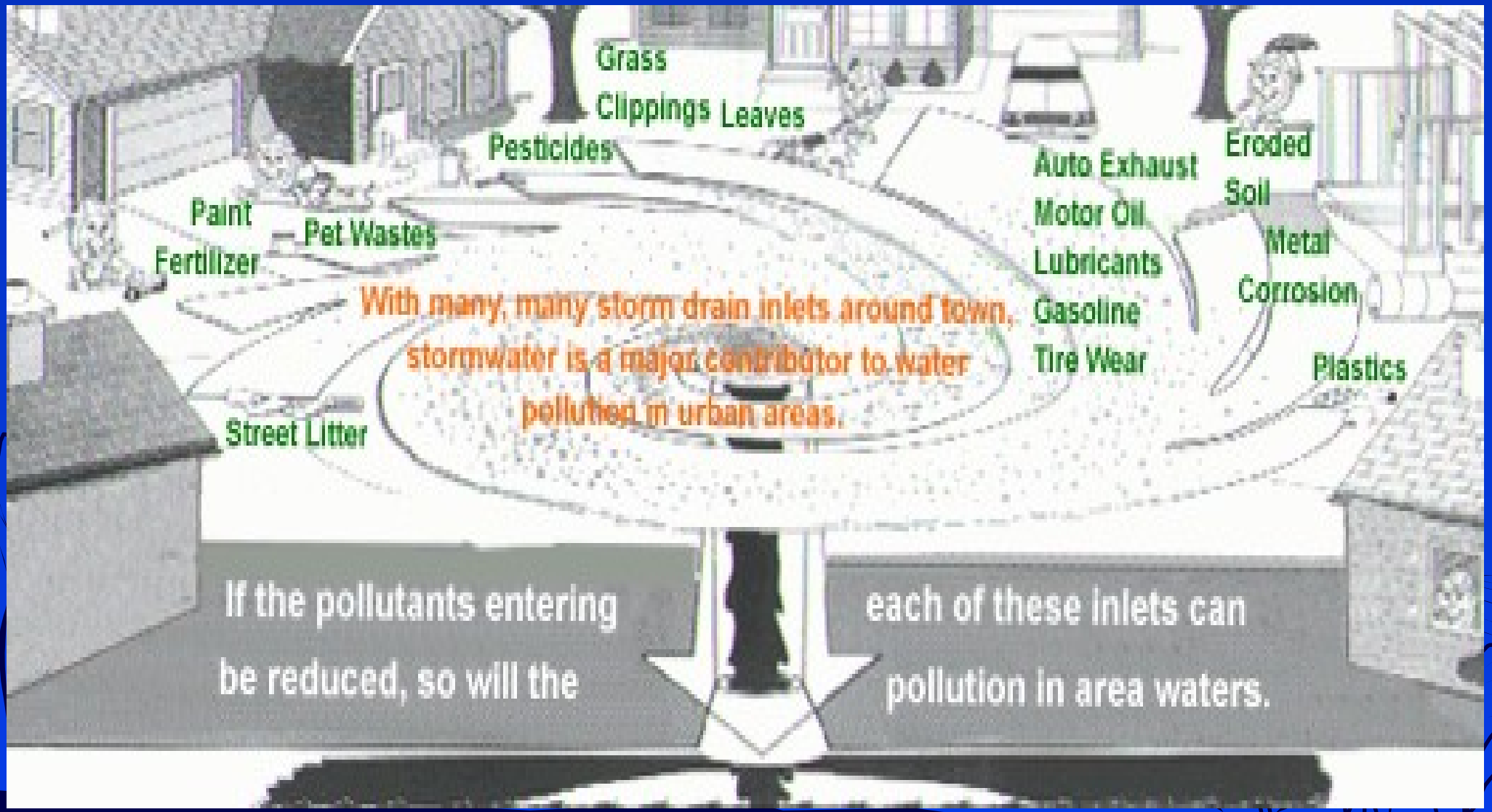
Coloring Pages



You are the solution to storm water pollution... Don't pollute!

Contact Environmental at (910) 341-8425

From EPA Site



Phase II Guidance

- EPA “Storm Water Phase II Compliance Assistance Guide” EPA 833-R-00-002, March 2000.
- http://www.epa.gov/owow/nps/eduinfo.html
- DOD Implementation Guidance for SW Phase II Regulations, DOD, Sep 00
- Storm Water Phase II Toolbox, USEPA, May 00
- EPA National Database of BMPs
- Education Resources, USGS Water Resources, Apr 01
- Factsheets, Office of Wastewater Management, USEPA, June 00
- SW BMPs, Office of WW Mgmt, USEPA, Aug 00.

Contacts

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